IN THE CLAIMS:

Please amend the claims as set forth below:

1-11. (Canceled herein)

12. (Currently amended) A method for thermally regulating multiple components of a computer system having multiple fluctuating heat loads, said method comprising the steps of:

controlling a flow of a refrigerant through a refrigerant line in a refrigeration system having a variable capacity compressor, said refrigeration system further including a plurality of evaporators and a valve, said valve being configured to meter said flow of said refrigerant through said plurality of evaporators, said plurality of evaporators configured for thermal attachment to said multiple components, said plurality of evaporators being positioned in a serial arrangement with one another;

sensing a temperature of the refrigerant in a position generally downstream of said plurality of evaporators; and

modifying said flow of said refrigerant through said plurality of evaporators in response to said temperature being outside a predetermined superheat temperature range.

13. (Original) The method for thermally regulating multiple components of claim 12, comprising the further steps of:

manipulating said valve to decrease the mass flow rate of refrigerant through said plurality of evaporators when said sensed temperature is below a predetermined superheat set point; and

manipulating said valve to increase the mass flow rate of refrigerant through said plurality of evaporators when said sensed temperature is above said predetermined superheat set point.

14. (Currently amended) The method for thermally regulating multiple components of claim 12, comprising the further steps of:

sensing a component temperature for each of said components; and

modifying a capacity of said variable capacity compressor in response to said component temperatures being outside a predetermined component temperature range.

15. (Original) The method for thermally regulating multiple components of claim 14, comprising the further steps of:

increasing the capacity of said variable capacity compressor in response to a maximum component temperature of said component temperatures exceeding or equaling a predetermined maximum temperature set point; and

decreasing the capacity of said variable capacity compressor in response to a minimum component temperature of said component temperatures being less than or equal to a predetermined minimum temperature set point.

16. (Currently amended) The method for thermally regulating multiple components of claim 12, comprising the further steps of:

sensing a component temperature for each of said components; and

varying the operation of at least one supplemental heater operable to affect the temperature of each of said components in response to said component temperatures being outside a predetermined component temperature range.

17. (Original) The method for thermally regulating multiple components of claim 16, comprising the further steps of:

turning off a respective supplemental heater, when said supplemental heater is on, for those components whose component temperatures are greater than or equal to a predetermined minimum temperature set point.

18. (Original) The method for thermally regulating multiple components of claim 16, comprising the further steps of:

turning on a respective supplemental heater, when said supplemental heater is off, for those components whose component temperatures are less than a predetermined minimum temperature set point.

19. (Original) The method for thermally regulating multiple components of claim 12, comprising the further step of initializing a counter and allowing a predetermined amount of time to pass prior to performing said component temperature sensing step.

20. (Cancelled herein)

21. (Newly added) The method for thermally regulating multiple components of claim 14, wherein the step of modifying a capacity of said variable capacity compressor comprises controlling the capacity modification of said variable capacity compressor with a proportional, integral, derivative controller configured to operate said variable capacity compressor.

22. (Newly added) The method for thermally regulating multiple components of claim 16, comprising the further steps of:

controlling one or more of the valve, supplemental heaters, and the variable capacity compressor to substantially maintain the refrigerant entering into the variable capacity compressor in a gaseous state.

23. (Newly added) The method for thermally regulating multiple components of claim 12, further comprising:

controlling the flow of refrigerant to flow sequentially through the plurality of evaporators.

24. (Newly added) The method for thermally regulating multiple components of claim 12, further comprising the steps of:

providing a superheat sensor positioned downstream of the plurality of evaporators to detect superheat of the refrigerant exiting the plurality of evaporators; and

wherein said thermostatic expansion valve is configured to vary a mass flow rate of the refrigerant based upon the detected superheat of the refrigerant.

25. (Newly added) A method for thermally regulating multiple components of a computer system, said method comprising:

providing a refrigeration system having a refrigerant line that connects a compressor, a thermostatic expansion valve and a plurality of evaporators, the refrigerant line connecting the plurality of evaporators in a serial arrangement;

providing a plurality of supplemental heaters associated with respective ones of the plurality of evaporators;

controlling a flow a refrigerant through the refrigerant line with the thermostatic expansion valve to meter the flow of the refrigerant through the plurality of evaporators to provide the plurality of evaporators with sufficient refrigerant to enable the plurality of evaporators to maintain the multiple components within predetermined temperature ranges; and

controlling the plurality of supplemental heaters to increase the temperatures of the plurality of evaporators in response to one or more of the multiple components having temperatures that fall below a predetermined set point temperature.

26. (Newly added) The method according to claim 25, further comprising:

sensing a temperature of the refrigerant in a position generally downstream of said plurality of evaporators; and

modifying said flow of said refrigerant through said plurality of evaporators in response to said temperature being outside a predetermined superheat temperature range.

27. (Newly added) The method according to claim 25, further comprising:

sensing a component temperature for each of said multiple components; and

modifying a capacity of said variable capacity compressor in response to said component temperatures being outside a predetermined component temperature range.

28. (Newly added) The method according to claim 27, further comprising:

increasing the capacity of said variable capacity compressor in response to a maximum component temperature of said component temperatures exceeding or equaling a predetermined maximum temperature set point; and

decreasing the capacity of said variable capacity compressor in response to a minimum component temperature of said component temperatures being less than or equal to a predetermined minimum temperature set point.

29. (Newly added) The method according to claim 27, wherein the step of modifying a capacity of said variable capacity compressor comprises controlling the capacity modification of said variable capacity compressor with a proportional, integral, derivative controller configured to operate said variable capacity compressor.

30. (Newly added) The method according to claim 27, further comprising:

controlling one or more of the thermostatic expansion valve, plurality of supplemental heaters, and the variable capacity compressor to substantially maintain the refrigerant entering into the variable capacity compressor in a gaseous state.

31. (Newly added) The method according to claim 27, further comprising:

controlling one or more of the thermostatic expansion valve, plurality of supplemental heaters, and the variable capacity compressor to substantially maintain the temperatures of the multiple components within predetermined component temperature ranges.

32. (Newly added) The method according to claim 25, further comprising:

providing a superheat sensor positioned downstream of the plurality of evaporators to detect superheat of the refrigerant exiting the plurality of evaporators; and

wherein said thermostatic expansion valve is configured to vary a mass flow rate of the refrigerant based upon the detected superheat of the refrigerant.